



Product Data Sheet

Cat # RP-361

Recombinant ProMatrix Metalloproteinase-7

Size: 5 ug

**Source:** *Escherichia Coli*. Matrix metalloproteinase-7 (MMP-7) also known as matrilysin and PUMP (EC 3.4.24.23) cleaves a number of substrates including collagen types IV and X, elastin, fibronectin, gelatin, laminin and proteoglycans. MMP-7 is closely related to the stromelysin family members but is encoded by a different gene. MMP-7 is the smallest of all the MMPs consisting of a pro-peptide domain and a catalytic domain. It lacks the hemopexin-like domain common to other members of the MMPs. MMP-7 is secreted as a 28 kDa proenzyme and can be activated in vitro by organo mercurials and trypsin and in vivo by MMP-3 to a 18 kDa active MMP-7 enzyme. Once activated, MMP-7 can activate pro-MMP-1 and pro-MMP-9 but not pro-MMP-2. MMP-7 is widely expressed having been reported in elevated levels in cycling endometrium as well as in colorectal cancers and adenomas, hepatocellular carcinomas, rectal carcinomas, and approximately 50% of gliomas. The protein (1 mg/ml) contains the following additives 25mM Tris-HCl (pH 7.5), 150mM NaCl, 5mM CaCl<sub>2</sub>, 0.01% Brij-35 and 0.02% NaN<sub>3</sub>.

**Usage:** This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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**Applications and Suggested Dilutions:** Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

**Storage and Stability:** ProMMP-7 although stable at 4°C for 3 weeks, should be stored desiccated below -18°C. **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

**Biological Activity:** The specific activity was found to be 1400 IU/mg.

**Unit Definition:** One unit is defined as the digestion of 1 µg Azocoll/min at 37°C.